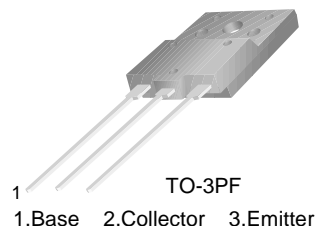


KSC5088

KSC5088

High Definition Color Display Horizontal Deflection Output

- High Collector -Base Voltage : $V_{CBO}=1500V$
- High Speed Switching: $t_f = 0.1\mu s$ (Typ.)



NPN Triple Diffused Planar Silicon Transistor

Absolute Maximum Ratings $T_C=25^\circ C$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	1500	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current (DC)	8	A
I_{CP}	Collector Current (Pulse)	15	A
I_B	Base Current	4	A
P_C	Collector Dissipation ($T_C=25^\circ C$)	50	W
T_J	Junction Temperature	150	$^\circ C$
T_{STG}	Storage Temperature	- 55 ~ 150	$^\circ C$

Electrical Characteristics $T_C=25^\circ C$ unless otherwise noted

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
I_{CBO}	Collector Cut-off Current	$V_{CB} = 800V, I_E = 0$			10	μA
I_{EBO}	Emitter Cut-off Current	$V_{EB} = 4V, I_C = 0$			1	mA
h_{FE1} h_{FE2}	DC Current Gain	$V_{CE} = 5V, I_C = 1A$ $V_{CE} = 5V, I_C = 6A$	8 5			
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = 6A, I_B = 1.5A$			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = 6A, I_B = 1.5A$			1.5	V
f_T	Current-Gain Bandwidth Product	$V_{CE} = 10V, I_C = 1A$		3		MHz
t_{STG}	Storage Time	$V_{CC} = 200V, I_C = 6A, R_L = 33.3\Omega$ $I_{B1} = 1.2A, I_{B2} = -2.4A$			3.0	μs
t_F	Fall Time				0.2	μs

Thermal Characteristics $T_C=25^\circ C$ unless otherwise noted

Symbol	Characteristic	Max	Unit
$R_{\theta JC}$	Thermal Resistance, Junction to Case	2.49	$^\circ C/W$

Typical Characteristics

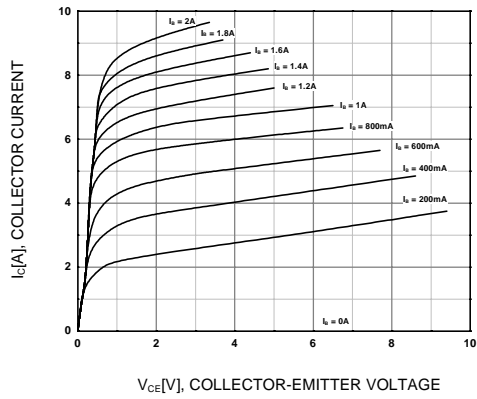


Figure 1. Static Characteristic

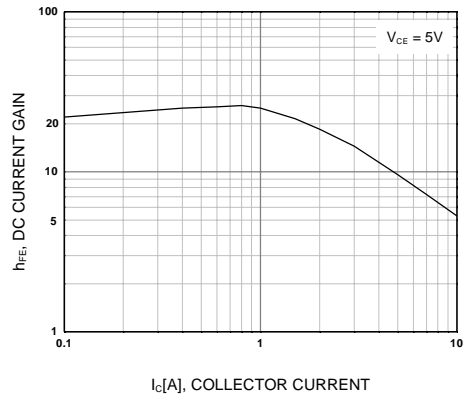


Figure 2. DC current Gain

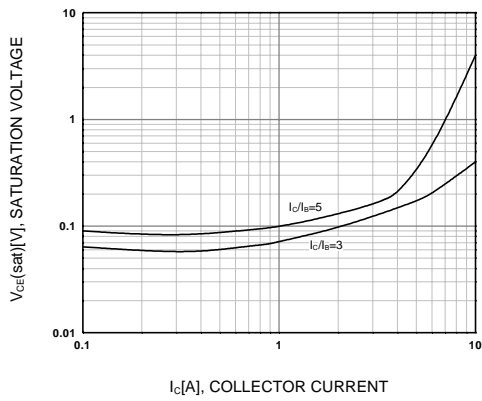


Figure 3. Collector-Emitter Saturation Voltage

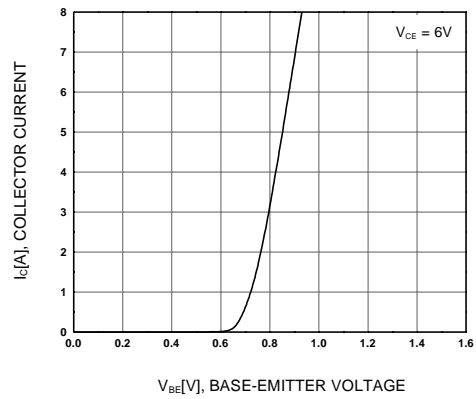


Figure 4. Base-Emitter On Voltage

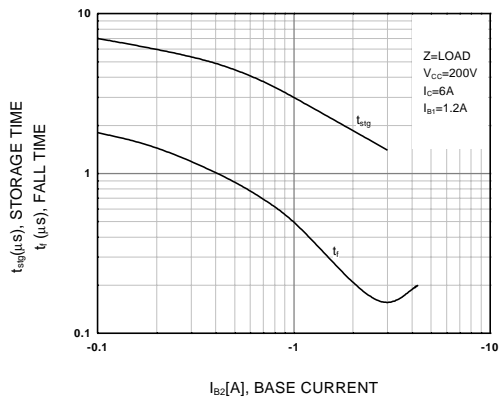


Figure 5. Switching Time

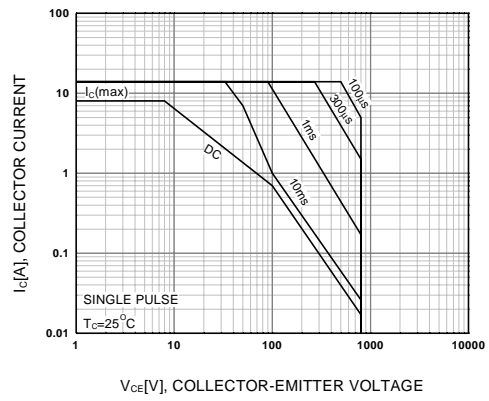


Figure 6. Safe Operating Area

Typical Characteristics (Continued)

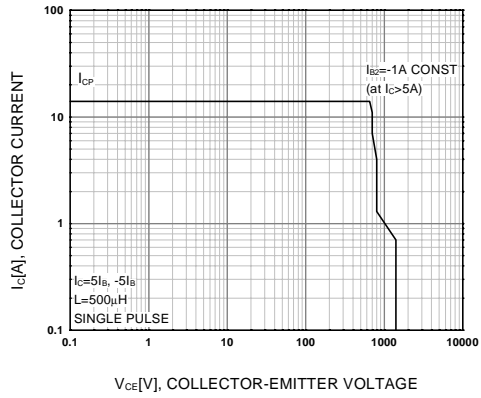


Figure 7. Reverse Safe Operating Area

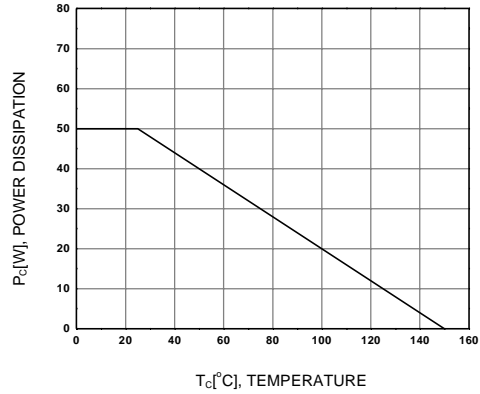
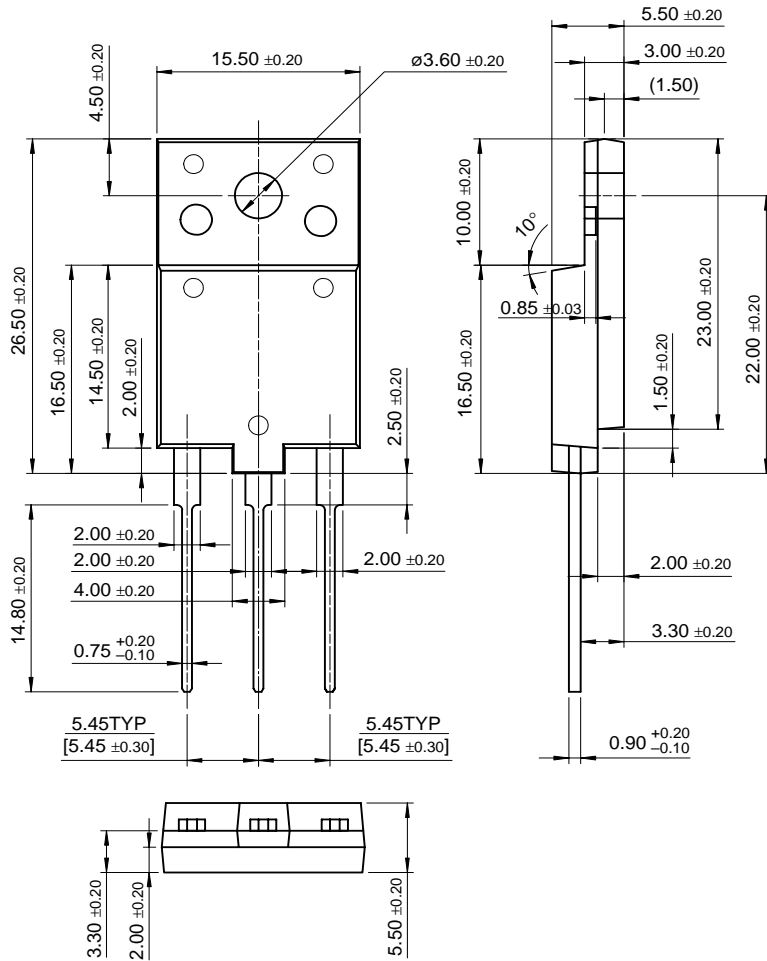


Figure 8. Power Derating

Package Dimensions

KSC5088

TO-3PF



Dimensions in Millimeters

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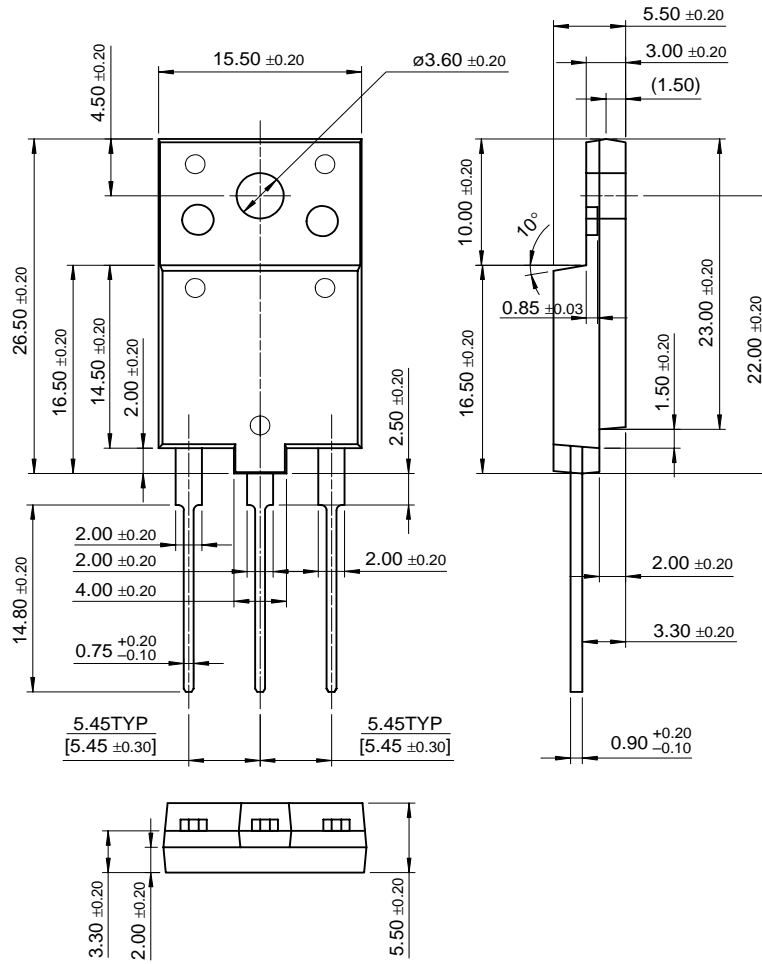
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Package Dimensions

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